

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent application of :
Naokatsu Ikegami : Box New Applications
Serial No. (new) :
Filed December 28, 2001 :
METHOD OF DRY ETCHING ORGANIC SOG FILM

PRELIMINARY AMENDMENT

Honorable Commissioner For Patents
Washington, D.C. 20231

Sir:

Prior to the examination of the above-identified application, the following
amendments and remarks are submitted:

In the Specification

***Kindly add the following new section between lines 1 and 2 at page 1 of the
specification:***

CROSS-REFERENCE TO RELATED APPLICATIONS

This is a divisional of Application Serial No. 09/519,575, filed March 6, 2000,
which is incorporated herein by reference in its entirety.

In the Claims

Kindly cancel Claims 1-11 without prejudice or disclaimer of their subject matter.

Kindly add the following new Claims 12-17:

12. (New) A method for fabricating a semiconductor device, comprising:
forming a contact hole in an organic insulating layer using a patterned resist layer formed over the organic insulating layer as a mask; and
ashing the patterned resist layer by a plasma treatment in the presence of a mixed gas containing nitrogen and hydrogen, and forming a protective film on a surface of the contact hole during said ashing, wherein the protective film is formed by reacting the organic insulating layer with the nitrogen.

13. (New) A method as claimed in claim 12, wherein the mixed gas is $O_2 + N_2H_2$.

14. (New) A method for fabricating a semiconductor device, comprising:
forming an organic spin-on-glass (SOG) film over an interconnect layer;
forming a contact hole in the organic SOG insulating layer so as to expose the interconnect layer using a patterned resist layer formed over the organic SOG insulating

layer as a mask; and

ashing the patterned resist layer by a plasma treatment in the presence of a mixed gas containing nitrogen and hydrogen, and forming a protective film on a surface of the contact hole during said ashing, wherein the protective film is formed by reacting the organic SOG insulating layer with the nitrogen.

15. (New) The method as claimed in claim 14, wherein a material of the organic SOG layer is obtained by adding an alkyl group to a silicon oxide.

16. (New) A method as claimed in claim 15, wherein the mixed gas is $O_2 + N_2H_2$.

17. (New) A method as claimed in claim 14, wherein the mixed gas is $O_2 + N_2H_2$.

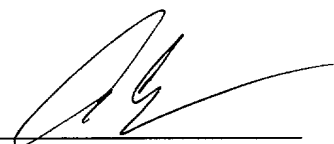
REMARKS

By this Preliminary Amendment, the specification has been revised to properly make reference to the allowed parent application, and original Claims 1-11 have been canceled in favor of new Claims 12-17.

Entry of this Preliminary Amendment is respectfully requested.

Respectfully submitted,

NAOKATSU IKEGAMI

By: 
Adam C. Volentine
Reg. No. 33,289

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VOLENTINE FRANCOS, PLLC
12200 Sunrise Valley Drive, Suite 150
Reston, VA 20191
(703) 715-0870